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News And Information For Pick™ Operating System Users

Issue Number 5

August 1984

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Issue 5 • August 1984

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The Best and The Worst of Pick

A reader recently called us to discuss the merits of the Pick operating system. His installation was using a machine running Pick, but he was considering converting to an IBM System/38 for various reasons, and he wanted to know if we had any opinions on which system would best meet his needs. Much of the conversation that ensued revolved around the "good" and "bad" features of the two operating systems.

After the call was over and our reader had hung up, we realized that a discussion of some of the good points and bad points of the Pick operating system might make an interesting column in *Pragma's Product Profiles*.

The Pick system has been a fairly successful product, but it's far from perfect. Just what *are* the very best and very worst features of the Pick operating system? What follows are the three best and the three worst, as far as we're concerned. What's your opinion?

The best thing about the Pick operating system is that...

1. It is a fast and efficient timesharing system. Of all the things the Pick operating system does well, the thing it does best is efficiently support multiple users on one machine. All other operating systems seem to gobble up enormous hardware resources trying to simultaneously support only a handful of terminals, while requiring fixed memory partitions and other such nonsense. The elegant use of a demand-paged, virtual memory architecture is what lets Pick achieve its superior performance, and it's surprising that more vendors haven't used that type of memory addressing scheme in their products. While it's true that a poorly programmed Pick machine can be terribly inefficient and execute just as slowly as any other system, a Pick system programmed with

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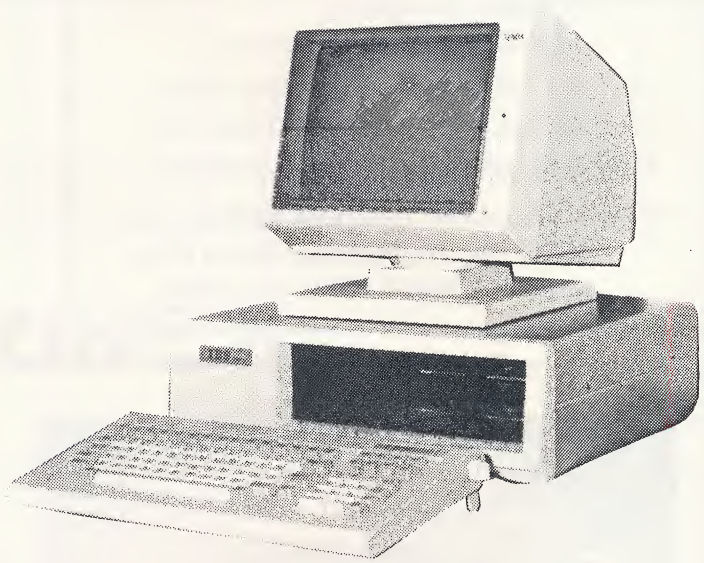

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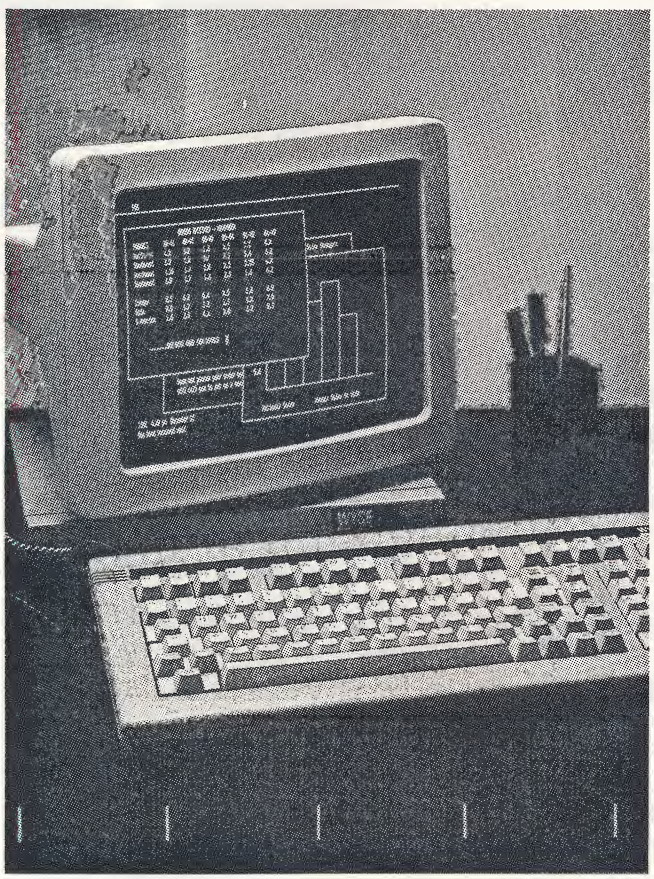
care can provide a price/performance ratio that's difficult to match with any other operating system on comparable hardware.

The best thing about the Pick operating system is that...

2. Everything is variable length. When it comes to storing data, the Pick operating system allows essentially any number of files, with each file containing any number of records, with each record containing any number of fields, with each field built of any number of sub-fields, and each sub-field having any number of sub-sub-fields, and all of those structures can be of any length. That results in a file system that is incredibly programmer-friendly and extremely flexible and easy to design and modify. Since the BASIC language available to programmers on the Pick system also treats everything as variable length strings, data manipulation inside programs is a breeze. (The symbolic and interactive BASIC debugging facility is



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another powerful tool generally not duplicated on other operating systems.) One sad note is that the report generator doesn't fully capitalize on the inherent flexibility of the file system. For example, the mechanisms for performing retrievals and sorts on sub–sub–values are so limited as to be practically non–existent. But in general, Pick offers a data base system much easier to use than those on competing machines.

The best thing about the Pick operating system is that...

3. It has a great spooler. Although multi–user systems often do an adequate job of supporting the simultaneous use of terminals, they often fail miserably when it comes to supporting simultaneous printers. The Pick operating system has always provided terrific spooler facilities that help make a computer a very practical business data processing system, especially because of the way the spooler supports multiple print queues, special

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forms, slave printers, and so on. However, one drawback in the design of the spooler is that it juggles everything inside its own secret data structures, and not in standard files that would allow easy access by custom programs.

The worst thing about the Pick operating system is that...

1. There is no input processor. Undoubtedly the biggest embarassment in the Pick operating system is that, although it has a very well defined data retrieval and report generation language for pulling data out of a data base, there is no standard language or processor for putting data *into* the data base. Instead, programmers must provide custom input programs using BASIC. It seems almost ridiculous that the Pick system should on the one hand have an elaborate tool for generating output, and at the same time not have even the simplest form of an input processor to complement the output system.

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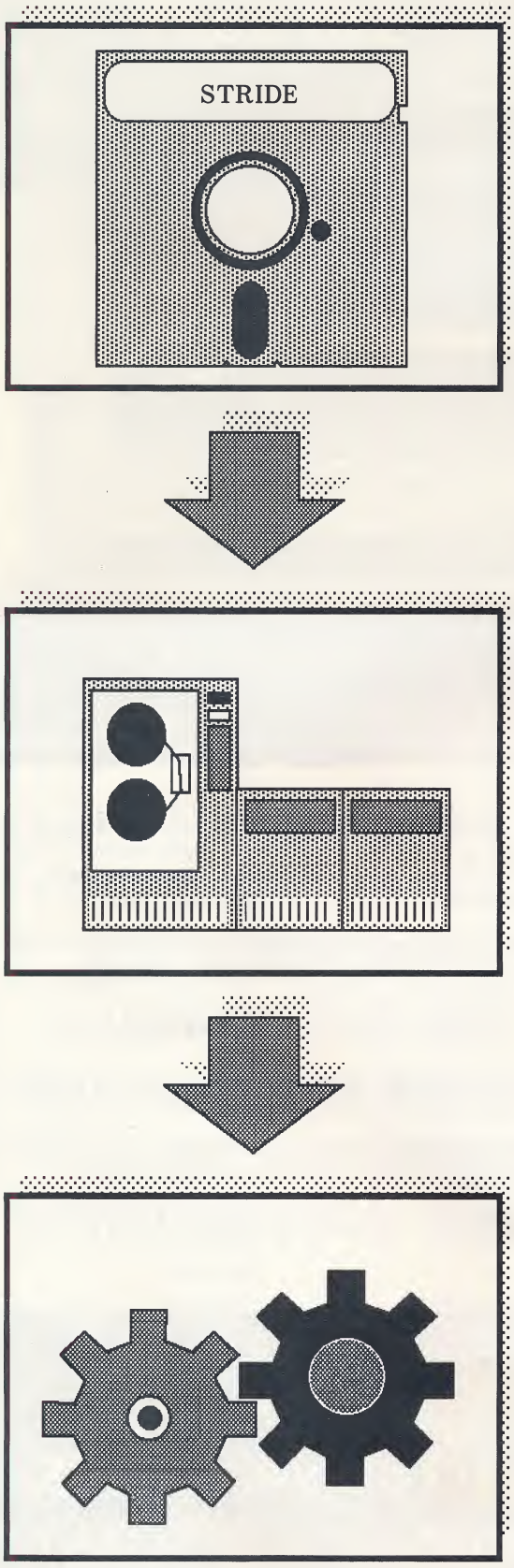

The worst thing about the Pick operating system is that...

2. The software is implemented in a very low level language. The fact that the Pick operating system is not implemented using a high level language means that the system is hard to support and enhance. Because the inner workings of an assembly language operating system like Pick are usually obscure and difficult to understand, the operating system tends to evolve and improve much more slowly than one written in a high level language. It is never well documented or understood. It constantly has bugs appearing and reappearing, especially whenever it is transported to a new machine. The Pick system can be very frustrating to programmers who try to extend its capabilities, especially when left only with interface mechanisms like the infamous, clumsy, non-symbolic, numeric user mode addresses that are the only gateways to the internals of the Pick system.

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PRAGMA is a 48-page journal for Pick users published quarterly from August 1982 through February 1984. Each issue is packed with software and helpful information, including complete and debugged program listings and detailed, explanatory articles for readers at all levels of experience. Order your issues today and begin unlocking the secrets in your Pick system!
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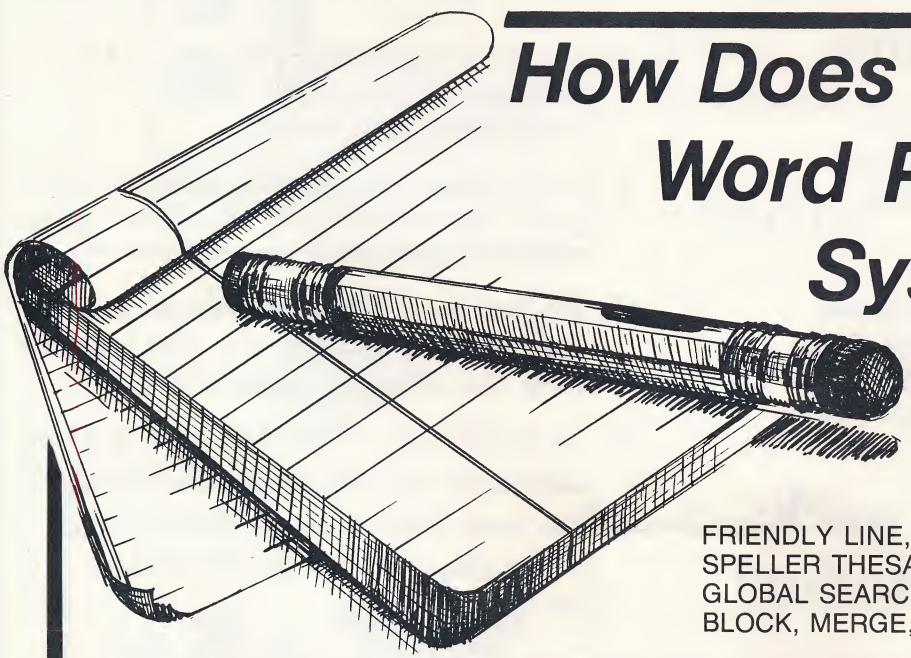
The worst thing about the Pick operating system is that...

3. Data dictionaries and update programs have to be separately and manually maintained. Although the dictionaries in the Pick filing system are the perfect place for defining the contents and structure of files, they really don't do a complete job. This is demonstrated by the fact that if a dictionary definition is edited in order to change the attribute number of a field in a file, the programmer must also then adjust every program that reads or writes that field in order to make sure all programs take the new attribute number into account. A better implementation would make this kind of manual software maintenance unnecessary. Instead, all update programs should automatically refer to the appropriate dictionary entries in order to determine



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What do you think are Pick's best and worst characteristics? If you have a different list than the above, let us know, and we'll include your opinion in a future issue. Δ

New Software and a Free Directory

Among various announcements we have recently received from Cosmos, the creators of the Pick-like system called Revelation for the IBM PC, is the news that the latest release of their product now includes code to emulate an 8087 (the $200 math co-processor chip previously required by Revelation), so that the software can now run on a PC

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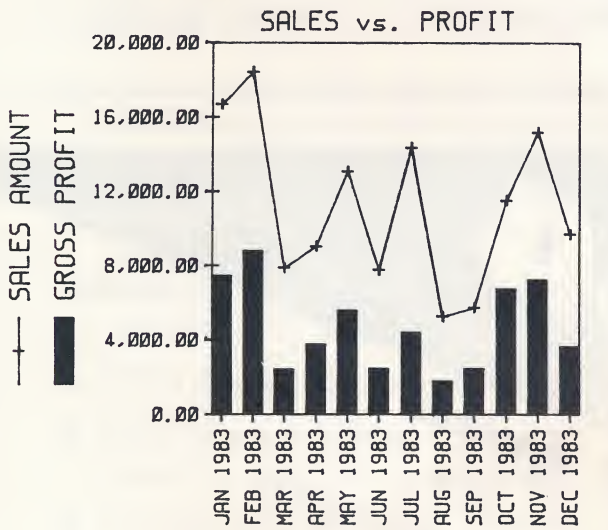

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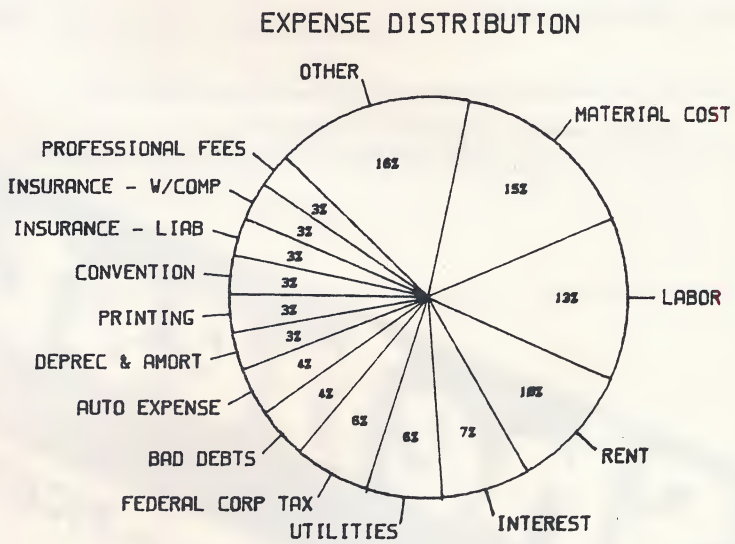

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The other news from Cosmos is that they are currently distributing a free 40 page *Software Applications Directory* listing over 80 applications for Revelation now available from software developers. They've sent us a copy, and we think it's definitely worth asking for if you're trying to keep up on which Pick-style software is currently available. While the book lists vendor names and addresses and program descriptions and prices, the entries are ordered by category only (insurance, inventory, law enforcement, and so on) and are not indexed. Get your free copy by writing Cosmos at 19530 Pacific Highway South #102, Seattle, WA 98188 or by calling 206-824-9942. Δ

Bantam News First Edition Received

Speaking of vendor publications, Bantam Computers has sent us the first issue of *Bantam News,* their new newsletter for keeping customers and vendors up to date on Bantam activities. Among other things, the four page premiere issue announced "the largest single Pick-based microcomputer sale in history", a $6.6 million order for 350 desktop systems to a "Fortune 500 customer". It was also interesting to read that "Word Processor", "Filing Cabinet" and "Spreadsheet" are now registered trademarks of Bantam.

For more information on *Bantam News,* contact Fred Gottlieb, 6033 West Century Boulevard #1200, Los Angeles, CA 90045. Δ

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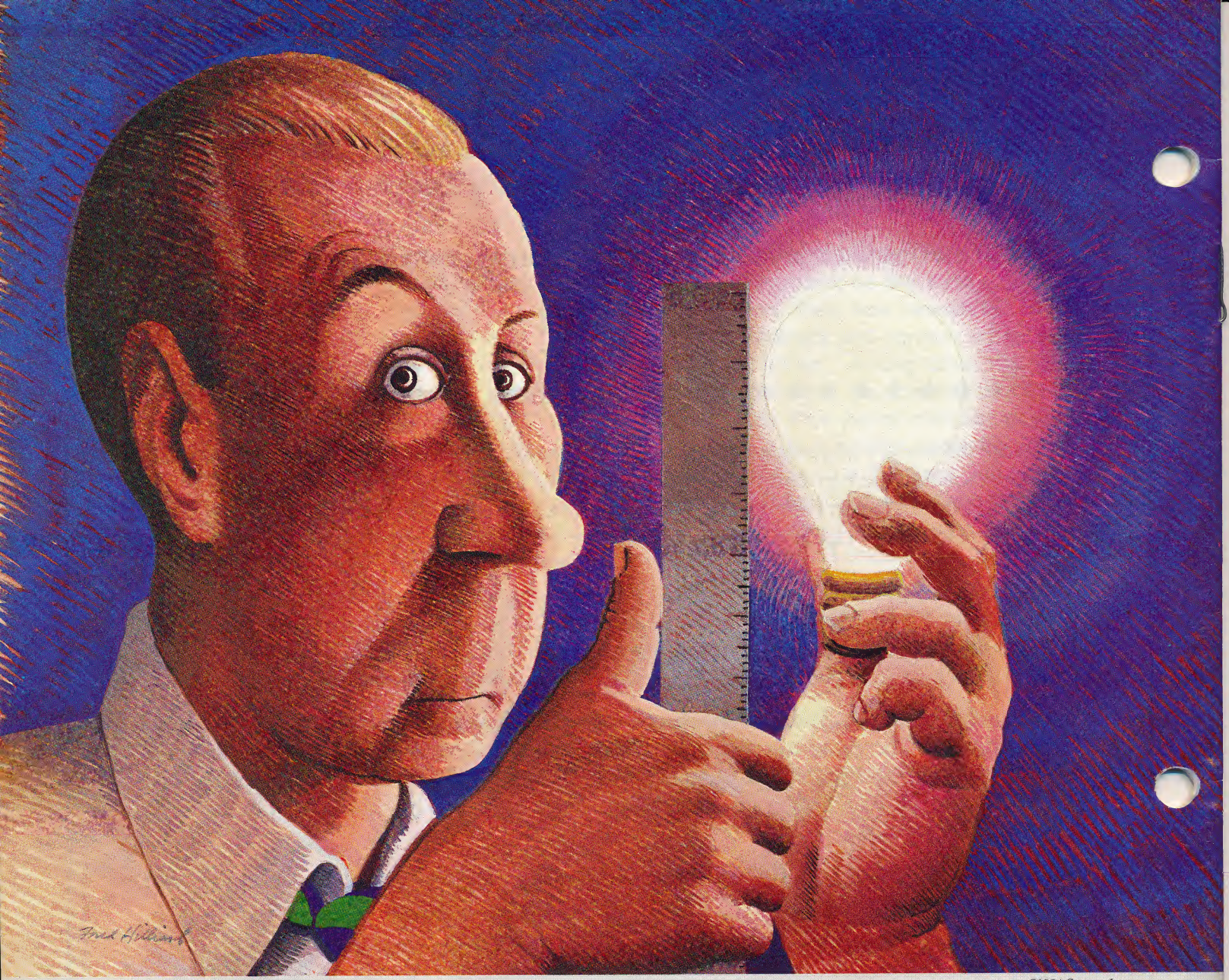

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